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10/826,744	04/16/2004	John Harper	P3356US1 (119-0036US)	1362

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EXAMINER
MCDOWELL, JR, MAURICE L

ART UNIT	PAPER NUMBER
2628	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _16 April 2004_.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _76-80_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _76-80_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
          application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
>
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
>
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
>
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
>
> manner in which the invention was made.

2.   Claims 76-80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giles Patent

No.: 6,115,054 in view of Glanville et al. Pub. No.: US 2003/0009748 A1.

3.   Regarding claim 76, Giles teaches: A method of applying two effects to an image, the

method comprising the steps of - using a first microprocessor to apply a first effect to a first

frame of said image, said first microprocessor applying said first effect while emulating a second

microprocessor (fig. 11A, 384 see also col. 16 lines 23-35) (The generation of frames is

equivalent to applying a first effect).

4.   Giles doesn't teach: -using said second microprocessor to apply a second effect to said

first-effected frame, applying said first effect to a next frame by said first microprocessor

approximately during the time that said second microprocessor is applying said second effect to

said first-effected frame.

5.   The analogous prior art Glanville teaches: -using said second microprocessor to apply a

second effect to said first-effected frame, applying said first effect to a next frame by said first

microprocessor approximately during the time that said second microprocessor is applying said

second effect to said first-effected frame (fig. 6, 606 see also [0084]) (The portion of graphics processing performed on ASIC is equivalent to 2nd processor applying effect to first frame) for the benefit of providing a set of API features that facilitate combining application-programmable vertex processing with existing 3D applications originally authored to use conventional vertex processing, and providing for API features that reduce the effort required to augment an existing 3D application to use application-programmable vertex processing.

6.   It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine using said second microprocessor to apply a second effect to said first-effected frame, applying said first effect to a next frame by said first microprocessor approximately during the time that said second microprocessor is applying said second effect to said first-effected frame as shown in Glanville with Giles for the benefit of providing a set of API features that facilitate combining application-programmable vertex processing with existing 3D applications originally authored to use conventional vertex processing, and providing for API features that reduce the effort required to augment an existing 3D application to use application-programmable vertex processing.

7.   Regarding claim 77, Giles teaches: The method wherein the first microprocessor is a CPU and the second microprocessor is a GPU (fig. 4, 140 and 158 see also col. 6 lines 5-11; col. 6 lines 63-67).

8.   Regarding claim 78, Giles teaches: The method where emulation is effected through a virtual machine (col. 2 lines 20-26).

9.   Regarding claim 79, Giles doesn't teach: The method wherein emulation is effected through translating a GPU program to a CPU program.

10.   The analogous prior art Glanville teaches: The method wherein emulation is effected

through translating a GPU program to a CPU program [0015] for the benefit of providing a set of

API features that facilitate combining application-programmable vertex processing with existing

3D applications originally authored to use conventional vertex processing, and providing for API

features that reduce the effort required to augment an existing 3D application to use application-

programmable vertex processing.

11.   It would have been obvious to one of ordinary skill in the art at the time the invention

was made to combine emulation is effected through translating a GPU program to a CPU

program as shown in Glanville with Giles for the benefit of providing a set of API features that

facilitate combining application-programmable vertex processing with existing 3D applications

originally authored to use conventional vertex processing, and providing for API features that

reduce the effort required to augment an existing 3D application to use application-

programmable vertex processing.

12.   Regarding claim 80, Giles teaches: A computer-readable medium having computer

executable instructions for performing the method (fig. 4, 144).

Response to Arguments

13.   Applicant's arguments with respect to claims 76-80 have been considered but are moot in

view of the new grounds of rejection.

Conclusion

        Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MAURICE MCDOWELL, JR whose telephone number is

(571)270-3707. The examiner can normally be reached on Mon-Friday 7:30am - 5:00pm

Eastern Time.

   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Xiao Wu can be reached on 571--272-7761. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

   Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MM

/XIAO M. WU/
Supervisory Patent Examiner, Art Unit 2628